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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,816	12/08/2003	Peter Kan	MBM1360	4225

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EXAMINER

DUNWIDDIE, MEGHAN K

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 05/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/730,816

Applicant(s)

KAN, PETER

Examiner

Meghan K. Dunwiddie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-17 is/are rejected.
- 7) ☒ Claim(s) 4,5,18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is a Non-Final Rejection in response to the amendment filed on February 27, 2006 by **Kan**.

Response to Arguments

1. Applicant's arguments, see pages 6-12, filed February 27, 2006, with respect to the rejection(s) of claim(s) 1-4 and 6-18 under 35 USC § 112, 35 USC § 102(a), and 35 USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of **Rizkin et al.** (US 6814470), **Simon** (US 6361191), and **Fiene** (US 6260981).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 8-11, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by **Rizkin et al.** (US 6814470).

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4. In reference to Claim 1, **Rizkin et al.** shows a system for manipulating illumination created by an array of light emitting devices, said system comprising:

- A plurality of light emitting devices spatially arranged in an array, said array separated into one or more sections, wherein each section of the array includes light emitting devices capable of creating illumination having a predetermined wavelength range [Figure 1: (14)];
- A macroscopic optical system proximate to the plurality of light emitting devices, said macroscopic optical system enabling redirection of the illumination created by the plurality of light emitting devices, the macroscopic optical system providing a means for creating an off-axis distribution of the illumination [Figure 1: (16)];
- And a microscopic optical system for diffusing the illumination created by the plurality of light emitting devices subsequent to the redirection by the macroscopic optical system, the microscopic optical system configured to retain the off-axis distribution of the illumination; thereby providing a desired level of blending of the predetermined wavelengths ranges [Figure 3: (28)].

5. In reference to Claim 8, **Rizkin et al.** shows:

- The macroscopic system includes at least one vertical trough reflector [Figure 1: (16)].

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6. In reference to Claim 9, **Rizkin et al.** shows:
 - The vertical trough reflector is a parabolic shape [Figure 1: (16)].
7. In reference to Claim 10, **Rizkin et al.** shows:
 - The macroscopic optical system includes at least one vertical parabolic trough reflector and at least one linear tilted parabolic reflector [Figure 1: (16)].
8. In reference to Claim 11, **Rizkin et al.** shows:
 - The microscopic optical system is a diffuser that diffuses the illumination in a horizontal direction [Figure 3: (28)].
9. In reference to Claim 13, **Rizkin et al.** shows:
 - The microscopic optical system is a diffuser that diffuses the illumination evenly in all directions [See column 4 lines 46-67 in reference to Figure 3: (28)].

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. Claims 2, 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rizkin et al.** (US 6814470) in view of **Simon** (US 6361191).

12. Regarding Claim 2, **Rizkin et al.** shows the claimed invention as cited above, but does not specifically teach the macroscopic optical system includes at least one horizontal reflector.

13. Regarding Claim 6, **Rizkin et al.** shows:

- The reflector is a linear reflector that is tilted and curved [Figure 1: (16)].

14. Regarding Claim 7, **Rizkin et al.** shows:

- The reflector is a parabolic shape [Figure 1: (16)].

15. **Simon** teaches:

- The macroscopic optical system includes at least one horizontal reflector [Figure 1C: (34)].

16. It would have been obvious for one of ordinary skill in the art, at the time of the invention to provide the macroscopic optical system of **Rizkin et al.** with a horizontal reflector as taught by **Simon** for the purpose and advantage of changing the direction of the emitted light rays.

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17. Regarding Claim 3, **Rizkin** et al. shows the claimed invention as cited above, but does not specifically teach the horizontal reflector is planar.

18. **Simon** teaches:

- The horizontal reflector is planar [See column 2 lines 45-46 in reference to Figure 1C: (34)].

19. It would have been obvious for one of ordinary skill in the art, at the time of the invention to provide the macroscopic optical system of **Rizkin** et al. with a horizontal reflector that is planar as taught by **Simon** for the purpose and advantage of changing the direction of the emitted light rays.

20. Claims 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rizkin** et al. (US 6814470) in view of **Fiene** (US 6260981).

21. Regarding Claim 12, **Rizkin** et al. shows the claimed invention as cited above, but does not specifically teach a holographic diffuser having a linear or elliptical distribution, a mechanically produced plastic diffuser and a Lenticular array.

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22. **Fiene** teaches:

- A holographic diffuser having a linear or elliptical distribution, a mechanically produced plastic diffuser and a lenticular array [See column 4 line 66-column 5 line 1].

23. It would have been obvious for one of ordinary skill in the art, at the time of the invention to provide the microscopic optical system of **Rizkin et al.** with a plastic diffuser as taught by **Fiene** for the purpose and advantage of enabling the reduction of the appearance of high brightness or illumination "hot spots" which can result from the illumination of an area using point light sources like light emitting diodes.

24. Regarding Claim 14, **Rizkin et al.** shows the claimed invention as cited above, but does not specifically teach a holographic diffuser having a circular distribution, a frosted or sandblasted glass diffuser, a plastic diffuser and a lenslet array.

25. **Fiene** teaches:

- A holographic diffuser having a linear or elliptical distribution, a mechanically produced plastic diffuser and a lenticular array [See column 4 line 66-column 5 line 1].

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26. It would have been obvious for one of ordinary skill in the art, at the time of the invention to provide the microscopic optical system of **Rizkin et al.** with a plastic diffuser as taught by **Fiene** for the purpose and advantage of enabling the reduction of the appearance of high brightness or illumination "hot spots" which can result from the illumination of an area using point light sources like light emitting diodes.

27. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Rizkin et al.** (US 6814470).

28. Regarding Claim 15, this claim is considered to be the obvious method of manipulating the illumination of Claim 1 and as such is similarly rejected.

29. Regarding Claim 16, this claim is considered to be the obvious method of manipulating the illumination of Claim 1 and as such is similarly rejected.

30. Regarding Claim 17, this claim is considered to be the obvious method of manipulating the illumination of Claims 1 and 10 and as such is similarly rejected.

Allowable Subject Matter

31. Claims 4, 5, 18, and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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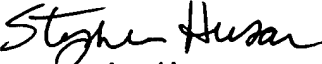
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meghan K. Dunwiddie whose telephone number is (571)272-8543. The examiner can normally be reached on Monday through Friday 8 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571)272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MKD


Stephen Husar
Primary Examiner